03050109-170

(Little Saluda River)

General Description

Watershed 03050109-170 is located in Saluda County and consists primarily of the *Little Saluda River* and its tributaries. The watershed occupies 151,912 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Herndon-Tatum-Helena-Georgeville series. The erodibility of the soil (K) averages 0.43, the highest in the Saluda River Basin; the slope of the terrain averages 7%, with a range of 2-25%. Land use/land cover in the watershed includes: 1.08% urban land, 31.33% agricultural land, 1.07% scrub/shrub land, 0.05% barren land, 65.39% forested land, and 1.18% water.

The Little Saluda River is formed by the confluence of Mine Creek (Little Mine Creek, Dry Creek) and Red Bank Creek (Penn Creek, Salem Branch) and flows through the Saluda Reservoir near the Town of Saluda. Further downstream, the Little Saluda River is joined by Canebrake Branch, Burnets Creek, and Richland Creek (Poplar Branch, Corley Branch). Big Creek (Dry Creek, Shiloh Branch, Persimmon Creek, Watermelon Branch) joins the Little Saluda River to form an arm of upper Lake Murray. The Town of Saluda has several lakes along Red Bank Creek and upper region of the Little Saluda River for water supply and municipal purposes. Indian Creek and Dailey Creek flow into the Little Saluda River arm of Lake Murray forming small coves. There are a total of 202.6 stream miles in this watershed, all classified FW.

Water Quality

Station #	Type	Class	Description
S-050	S	FW	LITTLE SALUDA RIVER AT US 378, E OF SALUDA
S-123	P	FW	LITTLE SALUDA RIVER AT S-41-39, 5.2 MI NE OF SALUDA
S-855	BIO	FW	BIG CREEK AT SR 122
S-222	W	FW	LAKE MURRAY, LITTLE SALUDA ARM AT SC 391

***Little Saluda River* - There are two monitoring sites along the Little Saluda River, which was Class B until April, 1992. At the upstream site (S-050), aquatic life uses are not supported due to dissolved oxygen excursions, compounded by a significant decreasing trend in pH. This is a secondary monitoring station and sampling is intentionally biased towards periods with the potential for low dissolved oxygen concentrations. A significant increasing trend in dissolved oxygen concentration and significant decreasing trends in five-day biochemical oxygen demand and total phosphorus concentrations suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions; however, a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.**

At the downstream site (S-123), aquatic life uses are partially supported due to dissolved oxygen excursions, again compounded by a significant decreasing trend in pH. A high concentration of copper was measured in the 1997 sediment sample. A significant increasing trend in dissolved oxygen concentration and significant decreasing trends in five-day biochemical oxygen demand and total phosphorus and total nitrogen concentrations suggest improving conditions for these parameters. Recreational uses are partially supported due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria concentration.

***Big Creek (S-855)* - Aquatic life uses are partially supported based on macroinvertebrate community data.**

***Little Saluda River Arm of Lake Murray (S-222)* - Eutrophication assessments indicate that the Little Saluda River arm of Lake Murray is of intermediate trophic condition compared to other sites in large South Carolina lakes. Although pH excursions occurred, they were on the high end, a natural condition in lake situations with significant aquatic plant communities, and therefore aquatic life uses are considered to be fully supported. Recreational uses are fully supported at this site.**

Permitted Activities

Point Source Contributions

RECEIVING STREAM *FACILITY NAME* *PERMITTED FLOW @ PIPE (MGD)* *COMMENT*	*NPDES#* *TYPE* *LIMITATION*
LITTLE SALUDA RIVER TOWN OF SALUDA/LITTLE SALUDA PLT PIPE #: 001 FLOW: 0.465 WQL FOR NH3-N, DO, TRC, BOD5	SC0022381 MINOR DOMESTIC WATER QUALITY

Growth Potential

Growth for the Town of Saluda, found in the center of this watershed, is limited due to water and sewer constraints. Saluda County recently connected into the Edgefield County Water and Sewer Authority's Regional Sewer Collection System, which should provide more potential for future growth. U.S. Highways 178 and 378 run through the watershed, and together with existing industry may encourage growth in this area.